BRITISH COLUMBIA MINISTRY OF FORESTS

Tree Farm Licence TFL 53

held by Dunkley Lumber Limited

Rationale for Allowable Annual Cut (AAC) Determination

effective January 1, 1994
until next determination within five years

Larry Pedersen
Chief Forester

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Description of the tree farm licence:

Tree farm licence (TFL) 53, presently held by Dunkley Lumber Limited, is situated in the Prince George Forest District, south of Hixon and north of Ahbau Creek, east of Highway 97 and west of Stony Lake. Its southeastern edge is contiguous with TFL 52 in the Cariboo Forest Region.

The total land base for TFL 53 is 87 623 hectares (ha), with a productive forest land base of 82 767 ha and a net operable land base of 72 892 ha (i.e. 88 percent of the productive forest land or 83 percent of total TFL area). The TFL represents some of the most productive forest land that was originally part of the Prince George TSA. The mean annual increment (MAI) in TFL 53 is approximately 4.0 cubic metres per hectare per year (m^3/ha/yr) compared with an MAI of approximately 2.9 m^3/ha/yr in the Prince George TSA.

The forest of TFL 53 lies primarily within the Sub Boreal Spruce biogeoclimatic zone but about 10 percent of the TFL area is within the Engelmann Spruce Subalpine Fir biogeoclimatic zone. The timber in the area is predominantly mature spruce and pine.

The volume of logs harvested annually from the TFL comprises 30 percent of the wood processed in the Dunkley Lumber Ltd. sawmill in Strathnaver. The sawmill produces random-length, export and shop-grade lumber, trim blocks and a small quantity of studs.

History of present AAC

In 1987 Dunkley Lumber Ltd. applied to the Minister of Forests requesting the award of a tree farm licence upon surrender of Dunkley's Forest Licence in the Prince George Timber Supply Area. The application requested that the quota which had been apportioned to Dunkley from the Prince George Timber Supply Area AAC, 167 380 m^3, be transferred to a tree farm licence tenure to secure a supply of timber for Dunkley's sawmill in Strathnaver. A land base that would support the Dunkley quota, a Small Business Forest Enterprise Program (SBFEP) apportionment and a harvest forecast similar to the Prince George TSA was delineated. On May 30, 1989, the Chief Forester determined an AAC for TFL 53 of 187 630 m^3 as proposed in Management Plan (MP) No. 1. This included 28 620 m^3 to be allocated to the SBFEP. Until the present determination there has been no partitioning of the AAC for the TFL.

New AAC Determination

The new AAC for TFL 53 will be 204 700 m^3: Of this, 4 100 m^3 will be partitioned to residual balsam leading stands that contain merchantable volumes, as identified in MP No. 2 and discussed in more detail below. 200 600 m^3 will be partitioned to the remainder of the TFL. This AAC is effective January 1, 1994. I am required by legislation to redetermine the AAC not more than 5 years from this date.

The AAC determined is lower than the figure of 211 200 m^3 proposed by the licensee, in order to account for visual quality in the Highway 97 viewshed, in a manner consistent with provincial objectives and procedures for managing visual resources.

Information sources used in the AAC determination

Information considered in determining the AAC for TFL 53 includes the following:

- TFL 53 Management Plan No. 2;
- Timber supply analysis dated March 1994, by the licensee;
- Review by the B.C. Forest Service of licensee's timber supply analysis, March 1994;
- 20-year plan for TFL 53;
- Letter of September 16, 1993, from Prince George Forest District Renewable Tenures Forester to the licensee regarding the preparation of Management Plan No. 2;
- Letter of December 21, 1993, from the Chief Forester to the licensee regarding the extension of MP No.1;
- Letter of March 7, 1994, from Ministry of Environment, Lands and Parks Northern Interior Region Habitat Management Technician to the Prince George Forest District Manager regarding the TFL 53 Total Resource Plan;
- Letter of February 2, 1994, from Prince George Forest Region Manager to the licensee pertaining to the Highway 97 viewshed and the timber supply analysis for TFL 53;
- Letter of January 20, 1994, from Prince George Forest Region Manager to the licensee pertaining to changes in the landscape inventory and analysis along Highway 97;
- Letter of January 13, 1994, from Prince George Forest Region Manager to the licensee regarding the receipt of the Draft Landscape Inventory and Analysis map;
- Letter of March 10, 1994, from Prince George Forest District Renewable Tenures Forester to the licensee regarding the revised 20-year plan;
- Letter of May 17, 1994, from Prince George Forest District Manager to the licensee regarding the April 28, 1994 submission of the 20 Year Total Resource Plan for Tree Farm Licence 53;
- Letter of December 5, 1994, from the licensee to the Chief Forester regarding the effective date of the new AAC.

Technical limitations of the information used

The *Forest Act* instructs me to consider biophysical as well as social and economic information in AAC determinations. A timber supply analysis and the inventory and growth and yield data used as inputs to the analysis formed the major body of technical information used in my AAC determination for TFL 53. The timber supply analysis and associated inventory are concerned primarily with biophysical factors, such as rate of timber growth and definition of the land base considered available for timber harvesting. They also indirectly incorporate some economic information such as a classification of a site's timber growing potential that defines the types of timber that can be physically and economically accessed given current technology and markets.

However, the analytical techniques used to assess timber supply are simplifications of the real world. There is uncertainty about many of the factors used as inputs to timber supply analysis due to both random variation and ongoing, science-based improvements in the understanding of ecological dynamics.

Furthermore, technical analytical methods such as computer models cannot incorporate all of the social, cultural, and economic factors that are relevant when making forest management decisions. Therefore, technical information and analysis do not necessarily provide the correct answer or solution to forest

management problems such as AAC determination. The information does, however, provide valuable insight into potential impacts of different resource-use assumptions and actions, and thus forms an important component of the information I must consider in AAC determinations.

In making the AAC determination for TFL 53, I have considered the limitations of the technical information provided. I am satisfied that this information provides a sound basis for my determination.

Statutory framework

Section 7 of the *Forest Act* (revised 1992) requires the Chief Forester to consider various factors in determining AACs for TSAs. Section 7 is appended as Appendix 1.

Guiding principles for AAC determinations

In considering the various factors required by section 7 of the *Forest Act* to be taken into account in determining AACs, I attempt to reflect as closely as possible operability and forest management factors that are a reasonable extrapolation from current practices. It is not appropriate to base my decision on unsupported speculation with respect either to factors that could work to *increase* the AAC--such as optimistic assumptions about harvesting in unconventional areas or using unconventional technology that are not substantiated by demonstrated performance--or to factors that could work to *reduce* the AAC--such as IRM objectives beyond those articulated in current planning guidelines.

In the case of AAC determinations for tree farm licence areas, the forest management commitments in the most recently approved management plan are usually the most reliable starting place for any reasonable extrapolation regarding the forest management factors to be taken into account in the determination.

The impact of the Forest Practices Code is generally a matter of considerable public concern. Even without the Code, I consider it reasonable to expect that, based upon recent trends, the constraints upon timber supply from the application of current guidelines would become increasingly significant over the next five years. In this determination, made prior to implementation of the Code, I have not had the benefit of any regulations or standards which might assist me in assessing the impact of any new constraints on timber production which might be imposed under the Code. However, while I have not considered any more stringent restrictions or additional impacts upon timber supply beyond those anticipated to occur due to the application of current guidelines, I have assumed that the Code will at the very least entrench the standards exemplified by current guidelines as statutory requirements.

The impact on the timber supply of land-use decisions resulting from planning processes such as the Commission on Resources and Environment (C.O.R.E.) process or the Land and Resource Management Planning (LRMP) process is a matter often raised in discussions of allowable annual cut determinations. In this respect, in determining allowable annual cuts it would be inappropriate for me to attempt to speculate on the impacts on timber supply that will result from land-use decisions which have not yet been taken by government. Thus I do not consider the possible impacts of existing or anticipated recommendations made by such planning processes, nor do I attempt to anticipate any action the government could take in response to such recommendations. I consider only those effects on timber supply which result from land-use decisions that have already been taken by government.

The Forest Renewal Plan will fund a number of intensive silviculture activities that have the potential to

affect the long-term timber supply. In general, it is too early for me to assess the efficacy of these activities but wherever appropriate I will take their effects in account. The next timber supply review will be better positioned to determine how the Plan has affected the short and long-term timber supply.

Some have suggested that, given the large uncertainties present in some cases with respect to some of the data in AAC determinations, any adjustments in AAC should wait until better data are available. I agree that some data are not complete, but this will always be true where information is constantly evolving, and management issues changing. Moreover, in the past, waiting for improved data has created the extensive delays that have resulted in the current urgency to redetermine many outdated AACs. In any case, the data and models available today are far superior to those available in the past, and will undoubtedly provide for more reliable determinations.

Others have suggested that in view of data uncertainties I should immediately reduce some AACs in the interests of caution. However, any AAC determination I may make must be the result of applying my judgement to the best available information, taking any uncertainties into account. No responsible AAC determination can be made solely on the basis of a response to uncertainty. However, in making my determination, I may need to make allowances for risks that arise because of uncertainty.

Overall, in making this determination, I am mindful of my obligation as steward of the forest land of British Columbia and of the mandate of the Ministry of Forests as set out in section 4 of the *Ministry of Forests Act*.

Consideration of factors as required by Section 7 of the Forest Act

This section of the Act is appended as Appendix 1.

Section 7 (3)

- **In determining an allowable annual cut under this section the chief forester, despite anything to the contrary in an agreement listed in section 10, shall consider**
  - **(a) the rate of timber production that may be sustained on the area, taking into account**
    - **(i) the composition of the forest and its expected rate of growth on the area**

Inventory information

The greater portion of the inventory of the TFL is dominated by spruce, spruce-balsam and spruce-lodgepole pine stands. Of these stands 39 percent are considered mature and 61 percent are considered immature. The immature stands include a managed component and an unmanaged component.

The latest timber inventory was completed to ministry standards during 1991-1993. As part of the new inventory, site productivity was examined and, on average, the productivity classification for the TFL increased from the productivity classification used in the timber supply analysis completed in 1988. The productivity information used in the 1988 analysis was drawn from information from the Prince George TSA. As mentioned above under *Description of the tree farm licence*, TFL 53 represents some of the most productive forest land that was originally part of the Prince George TSA.

I am concerned about the classification of poor productivity or low-site stands as it affects the definition of the timber harvesting land base. Some areas of very low site index, also known as problem forest types, were included in the timber harvesting land base. The licensee believes about 6 000 ha are more productive than indicated by the inventory classification and these areas were therefore labelled special site and considered to contribute to the timber harvesting land base. This site productivity reclassification did not examine areas that were actually less productive than indicated by the inventory file. In spite of the licensee's commitment in MP No.2 to harvest these low-site stands, the upward bias of the productivity reclassification may have resulted in an overestimation, to some degree, of the productivity of the timber harvesting land base. To the extent that these low-site stands are not harvested in the short term, or are not capable of regenerating productive stands, current and future harvest levels will be at risk. If these low-site stands are avoided, the harvest will be concentrated in other stands. Acknowledging the shortcomings of the inventory reclassification and its implied risks regarding low-site stands, however, I am satisfied that the existing inventory provides the best information available at this time for use in determining harvest levels in TFL 53.

It is significant to note that the licensee's site productivity reclassification resulted in an overall increase in the timber volume estimates from those used in the determination of the previous AAC. Due to this and to demonstrated performance in salvage operations (discussed below under 7 (3) (e)), the new AAC is higher than the previous AAC.

Growth and yield predictions

Growth and yield tables for existing mature stands were generated using the Variable Density Yield Projection (VDYP) growth and yield model. The existing stand volume estimates used in the licensee's timber supply analysis were accepted by the Forest Service's Inventory Branch. However the licensee expressed some concern that the volume estimates for older spruce-balsam stands may be overestimated. In order to be more realistic, the volume estimates for spruce leading stand areas with a site index greater than 12.7 were capped to a level which was consistent with scaled returns from similar sites that have already been harvested. Through the use of sensitivity analysis, the licensee examined the effect of these volume estimates on the timber supply forecast.

Overall, I am satisfied that the timber growth rate projections used in the licensee's sensitivity analysis constitute the best available information for use in determining allowable harvest levels for this area.

Minimum harvest age

Minimum harvest age is the time it takes for stands to grow to a harvestable condition. Harvest ages in the licensee's analysis were set at the age of mean annual increment culmination, between 68 and 141 years depending on site productivity and species. Culmination age is commonly used as minimum harvest age and I consider these specific ages to be a reasonable basis for use in this determination.

Operable land base

The land base contributing to the AAC in this TFL is not restricted by factors of terrain and merchantability. The entire land base is considered operable and a very large portion of it is already accessible by road. I believe that any inoperability present is accounted for by reductions made to the timber harvesting land base for factors such as sensitive soils and problem forest types.

- **(ii) the expected time that it will take the forest to become re-established on the area**

following denudation;

Regeneration delay

The licensee has aggressively reforested all harvested areas in order to minimize regeneration delays. On average in this TFL a harvested opening is planted within 2 years from the start of harvest.

Not satisfactorily re-stocked (NSR) areas

There were 780 ha of current, and 1 540 ha of backlog NSR on the TFL at the time of this analysis, March 1994. The analysis and MP No.2 assumed the restocking of all existing current and backlog NSR during the next 5 years. Given the licensee's performance to date and the management plan commitments, I am satisfied that the restocking objectives will be met and that these assumptions are therefore appropriate.

- **(iii) silvicultural treatments to be applied to the area;**

Rehabilitation programs

About 1 365 ha of TFL 53 are covered by balsam residual stands. These stands are the result of 1950s and 1960s timber harvesting activities that used intermediate utilization standards. Silvicultural activities relied on natural regeneration of harvested areas and, through the retention of mature balsam on cutblocks, were intended produce a final merchantable balsam crop. However, these harvesting and silvicultural activities were not successful in establishing a healthy new forest. Instead, brush species filled in the openings and the areas remain poorly stocked by the residual balsam stems.

To reflect the licensee's commitment in MP No.2 to harvest and effectively reforest these residual stand areas I have specified that 4 100 m^3 per year of the AAC is attributable to these stands. The volume is based on the merchantable volume of balsam that remains on these areas. It is expected that 30 percent of the remaining untreated areas contain sufficient timber volumes, 50 m^3 per hectare, to be economically feasible to harvest. I am therefore assuming this is the volume that will be available annually over a 5-year period from the estimated 410 ha of residual balsam-leading stands that contain between 50 and 140 m^3 of balsam per hectare.

Although these stands are already part of the timber harvesting land base, the timber supply analysis indicates that whether they are harvested or not does not have an effect on the short-term harvest forecast. However the long-term harvest level is supported by the assumption that these areas will contain productive forests.

The analysis assumes that the residual balsam areas containing insufficient volume to be considered part of this partition will be prepared for planting through mechanical site preparation and then reforested as detailed in MP No.2. This proposal by the licensee is very important to the long-term harvest levels projected in the analysis, because the long-term harvest level is also supported by the assumption that these areas will contain productive forests.

- **(iv) the standard of timber utilization and the allowance for decay, waste and breakage expected to be applied with respect to timber harvesting on the area;**

The decay, waste and breakage factors used in the licensee's analysis are consistent with neighbouring management units and were accepted by the B.C. Forest Service. I have no reason to believe there is any difference between current practices and the standards expressed in MP No.2 and assumed in the analysis. I am satisfied that these factors are appropriate for use in determining this AAC.

- **(v) the constraints on the amount of timber produced from the area that reasonably can be expected by use of the area for purposes other than timber production;**

Integrated resource management (IRM) constraints

adjacency and cutblock size

The licensee's analysis made specific allowances for integrated management objectives through the use of forest cover constraints and resource planning units in conformity with guidelines and a 20-year plan reviewed by and acceptable to the Ministry of Environment, Lands and Parks. The majority of the timber harvesting land base is managed under a three pass harvesting system.

In the Blowdown resource planning unit no forest cover constraints are assumed. This area of the TFL is prone to damage from wind and although MP No.2 indicates that cutblock design and harvesting techniques will be used to minimize wind damage, local Forest Service staff believe that windthrow, among other factors, will dictate cutblock size, configuration and the silvicultural system employed. MP No.2 proposes the application of progressive clearcutting techniques where alternative cutblock design (e.g. feathered edges) and harvesting methods are unsuccessful at preventing windthrow. The timber supply analysis indicates that the AAC I have determined can be achieved by alternative cutblock design and does not specifically require the use of progressive clearcutting. The only limit to harvesting in this resource planning unit is the commitment that harvesting will not exceed historic levels -- no more than 122 600 m^3 per year (two-thirds of the allowable harvest level) shall be harvested from this planning unit.

The 20-year plan supports the timber supply analysis and the AAC I have determined. However, the 20-year plan represents only one of a number of operational alternatives for achieving this AAC, and in this case does not reflect the alternative cutblock design committed to in the management plan, relying instead on progressive clear-cutting. Since there is ongoing research into the optimal characteristics of forest openings in the context of areas with histories of large disturbances from fire or wind, I cannot at this time consider this 20-year plan to be the best operational alternative. I therefore hold the licensee to its commitment of using alternative cutblock designs whenever possible, to avoid windthrow.

visual quality objectives

The licensee's proposed AAC does not account for the protection of visual quality in the Highway 97 viewshed. Sensitivity analysis conducted by the licensee, (referred to in the analysis report as Scenario 6B), does examine the effect of visual quality management in the Highway 97 viewshed using the visual absorption capability (VAC) ratings mapped for the viewshed. These ratings are used together with the visual quality objective for the area to determine the percentages of allowable alteration as described in the "Provincial Procedures for Factoring Recreation Resources in Timber Supply Analysis" (Recreation Branch Technical Report 1993:1). This is the procedure detailed in the January 20, 1994 letter from the Regional Manager of Prince George Forest Region to the Operations Supervisor - Forestry of Dunkley Lumber Ltd.

Sensitivity analysis Scenario 6B also examines the correct modelling of visual quality protection in the Ahbau Lake viewshed. Together, these two factors reduce the short-term timber supply by 6 500 m^3 per year. This sensitivity analysis constitutes the best quantification of the timber supply implications of proper visual quality protection in the Highway 97 viewshed. Although it also reflects the implications for timber supply of the correct modelling of the Ahbau Lake viewshed, the relatively small size of this viewshed and minor alteration to the management prescription lead me to conclude that the correct modelling of the Ahbau Lake viewshed has a negligible effect on timber supply. I am therefore satisfied that sensitivity analysis Scenario 6B provides the best available information at this time with respect to visual quality in the TFL, and is appropriate for use in this determination.

I understand there is concern that the extended rotation ages implied by the forest cover requirements prescribed in the Ahbau Lake viewshed may result in significant incidence of decay and infestation. If the volumes projected to be harvested from this area are not realizable it may result in the harvest being adversely concentrated in another area. This issue may require further attention in the review of future management plans.

riparian habitat

The protection of riparian habitat is addressed in the licensee's timber supply analysis through the application of forest cover requirements in the Fish and Wildlife Resource Planning Unit. Within the 3500 ha of this planning unit, 572 ha are not considered part of the timber harvesting land base because of concerns such as sensitive soils and the presence of problem forest types. However there are no deductions to the land base, for streamside buffers or other allowances, to account for riparian habitat that is too sensitive to withstand timber harvesting. It is assumed that these areas will be afforded adequate protection by ensuring a portion of the land base is always covered by mature stands and that no more than a maximum portion of the land base may be covered by young stands. I recognize that these guidelines have been favourably reviewed by the Ministry of Environment, Lands and Parks and by the Department of Fisheries and Oceans. Nonetheless, I expect the protection of riparian habitat will be a matter of concern in the future. However, until more information about this management issue is available I am not willing to speculate on the implications for timber supply.

biodiversity

Neither MP No.2 nor the licensee's analysis made specific allowances for integrated management objectives for biological diversity such as forest ecosystem networks. Ministry of Environment, Lands and Parks staff are aware of this and have commented favourably on the strategies proposed in MP No. 2. I recognize that this will be a matter of concern in the future, but until more information about this management issue is available I am not willing to speculate on the implications for timber supply of managing for biological diversity.

- **(vi) any other information that, in his opinion, relates to the capability of the area to produce timber;**

I am not aware of any such information at this time.

- **(b) the short and long term implications to the Province of alternative rates of timber harvesting from the area;**

The nature of the transition from harvesting in old- to second-growth stands is a major consideration in determining AACs for areas with a significant old-growth component. In this TFL, however, the harvest

forecasts presented in the licensee's timber supply analysis are non-declining harvest flows--they indicate the maximum non-declining harvest level over the period of the harvest forecast. There is no indication of a falldown from high harvest levels to lower future ones; rather the timber supply analysis shows the opposite--the long term harvest level is higher than the initial harvest level.

The analysis does not include any alternative harvest flows based on current forest management to evaluate the implications to the Province of different initial harvest rates. However, I am satisfied that the AAC determined for this management plan represents the optimal timber harvest that can be sustained from this TFL at this time, consistent with environmental objectives accepted by the Ministry of Environment, Lands and Parks, and consistent with the current practices assumed in the licensee's analysis to meet integrated resource management objectives.

- **(c) the nature, production capabilities and timber requirements of established and proposed timber processing facilities;**

The AAC determination has included those types of timber which are capable of being manufactured in the Strathnaver Dunkley Lumber Ltd. sawmill. For practical purposes, all of the wood harvested from TFL 53 is processed at the Dunkley mill and represents 30 percent of the total volume the mill processes.

- **(d) the economic and social objectives of the Crown, as expressed by the minister, for the area, for the general region and for the Province; and**

While the Minister has not expressed any specific social or economic objectives of the Crown for TFL 53, he has expressed the social and economic objectives of the Crown for the province (letter attached as an appendix) and these must therefore apply to TFL 53. They are consistent with the objectives stated in the Forest Renewal Plan and include good forest stewardship, a stable timber supply, and allowance of time for communities to adjust to harvest level changes in a managed transition from old growth to second-growth forests, so as to provide for continuity of employment. The Minister placed particular emphasis on the importance of long-term community stability and the continued availability of forest jobs. To this end he asked that I consider the potential impacts on timber supply of commercial thinning and harvesting in previously uneconomical areas and that I make use of all available vehicles, such as partitioned cuts to provide the forest industry with the opportunity and incentive to demonstrate their ability to utilize such timber resources. At present in this TFL, however, there are no suitable timber types or age class structures to provide opportunities for any significant use of commercial thinnings. However, to encourage harvesting and successful reforestation of the residual balsam leading stands I have instituted a partitioned cut. This will require more activity in these stands and promote earlier reforestation to ensure that these areas contribute to the timber supply assumed to be available in the future.

- **(e) abnormal infestations in and devastations of, and major salvage programs planned for, timber on the area.**

Estimates used in the analysis to account for non-recoverable losses such as those due to fire, windthrow and insects, were considerably lower than those used in the timber supply analysis for the adjacent Prince George TSA. The estimate proposed by the licensee, 1 600 m^3 per year, equates to about 5 ha of mature forest being lost annually to fire, wind, pests and disease. To remain consistent with comparable areas and yet account for the licensee's exceptional performance in salvage operations I have chosen to use a non-recoverable loss factor of 3 400 m^3 per year --approximately the mean of the two estimates, 1 600 m^3 and 5 275 m^3. This provides an opportunity for an increase in the short-term harvest level. I

expect further analysis to be undertaken in the future in order to confirm or better quantify estimates of non-recoverable losses.

Reasons for decision

In reaching my decision on an AAC for TFL 53, I have considered all of the factors presented above and have reasoned as follows.

I accept the reclassification of site productivity and the demonstrated performance with respect to salvage operations, as documented in MP No.2 and presented in the licensee's timber supply analysis. I am satisfied that these factors provide an opportunity to increase the AAC for this TFL.

The licensee has proposed an AAC of 211 200 m3. However, this proposed AAC does not account for the protection of visual quality in the Highway 97 viewshed. The best available quantification of the effect of managing visual quality in the viewshed is the licensee's sensitivity analysis 6B which indicates a 6 500 m^3 reduction in timber supply. For this reason I have reduced the licensee's proposed AAC by 6 500 m^3.

The allowable annual cut for TFL 53 will be 204 700 m^3.

Implementation of Decision

This determination comes into effect on January 1, 1994 as requested by the licensee. In view of the licensee's expectations in this regard, in view of the Chief Forester's letter of December 21, 1993 and in view of the Forest Service's role in fostering these expectations, I consider it to be appropriate in this instance to comply with the licensee's request. I am prepared to make this decision because it is determined and effective within the same cut control year.

The AAC will be partitioned in the following manner:

- **4 100 m^3 will be partitioned to residual balsam-leading stands that contain volumes between 50 m^3 and 140 m^3 per hectare; and**
  200 600 m^3 will be partitioned to the remainder of the TFL.

Larry Pedersen

Chief Forester

Appendix 1: Section 7 of the B. C. *Forest Act*

The B.C. *Forest Act* Section 7 (revised 1992) reads as follows:

Allowable annual cut

- 7. (1) The chief forester must determine an allowable annual cut before December 31, 1995, and after that determination at least once every 5 years after the date of the last determination, for
    - (a) the Crown land in each timber supply area, excluding tree farm licence areas and woodlot licence areas, and
      (b) each tree farm licence area.
- (1.1) If, after the coming into force of this subsection, the minister

- (a) makes an order under section 6 (b) respecting a timber supply area, or
  (b) amends or enters into a tree farm licence to accomplish the result set out under section 33.1 (1) (a) to (d),

then, with respect to that timber supply area or tree farm licence area, as the case may be, the chief forester is not required to make the determination under subsection (1) of this section before December 31, 1995, or within 5 years after the last determination, but is required to make the determination

- (c) within 5 years after the order under paragraph (a) or the amendment or entering into under paragraph (b), and
  (d) after the determination under paragraph (c), at least once every 5 years after the date of the last determination.

- (1.2) When the chief forester determines an allowable annual cut for a tree farm licence area, any management plan that specifies an allowable annual cut for that area is conclusively deemed to be amended so that the allowable annual cut specified in the management plan is the same as the most recent one determined by the chief forester.
- (1.3) In determining an allowable annual cut under this section the chief forester may specify portions of the allowable annual cut attributable to

- (a) different types of timber and terrain in different parts of Crown land within a timber supply area or tree farm licence area,
- (b) different types of timber and terrain in different parts of private land within a tree farm licence area, and
- (c) gains in timber production on Crown land that are attributable to silviculture treatments funded by the Province, the federal government, or both.

- (2) The regional manager or district manager shall determine a volume of timber to be harvested under a woodlot licence during each year or other period of its term, according to the licence.
- (3) In determining an allowable annual cut under this section the chief forester, despite anything to the contrary in an agreement listed in section 10, shall consider
    - (a) the rate of timber production that may be sustained on the area, taking into account
        - (i) the composition of the forest and its expected rate of growth on the area;
        - (ii) the expected time that it will take the forest to become re-established on the area following denudation;
        - (iii) silvicultural treatments to be applied to the area;
        - (iv) the standard of timber utilization and the allowance for decay, waste and breakage expected to be applied with respect to timber harvesting on the area;
        - (v) the constraints on the amount of timber produced from the area that reasonably can be expected by use of the area for purposes other than timber production; and
        - (vi) any other information that, in his opinion, relates to the capability of the area to produce timber;
    - (b) the short and long term implications to the Province of alternative rates of timber harvesting from the area;
    - (c) the nature, production capabilities and timber requirements of established and proposed timber processing facilities;

- (d) the economic and social objectives of the Crown, as expressed by the minister, for the area, for the general region and for the Province; and
- (e) abnormal infestations in and devastations of, and major salvage programs planned for, timber on the area.

Appendix 2: Section 4 of the Ministry of Forests Act

- Section 4 of the *Ministry of Forests Act* (1978) reads as follows:
  Purposes and functions of ministry
  - 4. The purposes and functions of the ministry are, under the direction of the minister, to
    - (a) encourage maximum productivity of the forest and range resources in the Province;
      (b) manage, protect and conserve the forest and range resources of the Crown, having regard to the immediate and long term economic and social benefits they may confer on the Province;
      (c) plan the use of the forest and range resources of the Crown, so that the production of timber and forage, the harvesting of timber, the grazing of livestock and the realization of fisheries, wildlife, water, outdoor recreation and other natural resource values are coordinated and integrated, in consultation and cooperation with other ministries and agencies of the Crown and with the private sector;
      (d) encourage a vigorous, efficient and world competitive timber processing industry in the Province; and
      (e) assert the financial interest of the Crown in its forest and range resources in a systematic and equitable manner.

Appendix 3: Minister's July 28, 1994 Letter to the Chief Forester.

File: 10100-01

Jul 28 1994

John Cuthbert
Chief Forester
Ministry of Forests
595 Pandora Avenue
Victoria, British Columbia
V8W 3E7

Dear John Cuthbert:

Re: Economic and Social Objectives of the Crown

The *Forest Act* gives you the clear responsibility for determining Allowable Annual Cuts, decisions with far-reaching implications for the province's economy. The *Forest Act* provides that you consider the social and economic objectives of the Crown, as expressed by me, in making these determinations. The purpose of this letter is to provide this information to you.

The social and economic objectives expressed below should be considered in conjunction with environmental considerations as reflected in the Forest Practices Code, which requires recognition and better protection of non-timber values such as biodiversity, wildlife and water quality.

The government's general social and economic objectives for the forest sector are made clear in the goals of the Forest Renewal Program. In relation to the Allowable Annual Cut determinations you must make, I would emphasize the particular importance the government attaches to the continued availability of good forest jobs and to the long-term stability of communities that rely on forests.

Through the Forest Renewal Plan, the government is taking the steps necessary to facilitate the transition to more value-based management in the forest and the forest sector. We feel that adjustment costs should be minimized wherever possible, and to this end, any decreases in allowable cut at this time should be no larger than necessary to avoid compromising long-run sustainability.
In addition to the provincial perspective, you should also consider important local social and economic objectives that may be derived from the public input on the Timber Supply Review discussion papers where these are consistent with the government's broader objectives.

Finally, I would note that improving economic conditions may make it possible to harvest timber which has typically not been used in the past. For example, use of wood from commercial thinnings and previously uneconomic areas may assist in maintaining harvests without violating forest practices constraints. I urge you to consider all available vehicles, such as partitioned cuts, which could provide the forest industry with the opportunity and incentive to demonstrate their ability to utilize such timber resources.

Yours truly,

Signed by
Andrew Petter
Minister

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